

IN THE CLAIMS

1-2. (Currently Canceled)

3. (Currently Amended) ~~The A~~ programming circuit ~~according to claim 2,~~
and a control circuit for controlling a charge pump of a voltage generator system, the
programming circuit comprising:

means for receiving at least one input control signal;

means for processing the at least one input control signal using at least a series of
bias stages;

means for generating at least one output control signal using at least a signal
outputted by the series of bias stages; and

means for outputting the at least one output control signal to the control circuit of
the voltage generator system for controlling the control circuit in accordance with the at
least one input control signal,

wherein the control circuit of the voltage generator system includes a limiter
circuit and an oscillator circuit, and

wherein a first input control signal of the at least one input control signal is
configured for exclusively generating a first output control signal of the at least one
output control signal for controlling the limiter circuit of the control circuit and a second
input control signal of the at least one input control signal is configured for exclusively
generating a second output control signal of the at least one output control signal for
controlling ~~an~~ the oscillator circuit of the control circuit.

4. (Original) The programming circuit according to claim 3, wherein the means for processing the at least one input control signal includes a first means for processing the first input control signal and a second means for processing the second input control signal.

5. (Original) The programming circuit according to claim 4, wherein the first output control signal is output by the first means for processing, and the second output control signal is output by the second means for processing.

6. (Original) The programming circuit according to claim 3, wherein the first input control signal is configured for indicating a target output voltage for the voltage generator system.

7. (Original) The programming circuit according to claim 6, wherein the limiter circuit includes circuitry for determining when the output voltage of the voltage generator system has reached the target output voltage indicated by the input signal, and upon a positive determination, the circuitry sends a third output control signal to the oscillator circuit to disable the oscillator circuit.

8. (Original) The programming circuit according to claim 7, wherein upon the positive determination, the circuitry sends the third output control signal to a charge pump of the voltage generator system to disable the charge pump.

9. (Original) The programming circuit according to claim 3, wherein the second input control signal is configured for indicating a pumping speed for the oscillator circuit.

10. (Currently Amended) The programming circuit according to claim-1 3, wherein the means for processing the at least one input control signal include means for converting each of the at least one input control signal into at least one binary signal, and means for providing a portion of the at least one binary signal to a bias stage of the series of bias stages for producing current bias of the at least one binary signal by a predetermined current bias.

11. (Currently Amended) The programming circuit according to claim-1 3, wherein the means for processing the at least one input control signal processes a coarse component signal and a fine component signal of the at least one input control signal.

12. (Currently Amended) The programming circuit according to claim-1 3, wherein the at least one input control signal is received from a processor.

13. (Currently Canceled)

14. (Original) The programming circuit according to claim 7, wherein the first output control signal is provided to a gate of a MOS transistor functioning as a current bias of the limiter circuit, and the third output control signal is output from a

comparator comparing a voltage level of a Voltage Reference signal and a voltage level of a voltage generated from a node of a resistor chain through which a current produced by the current bias passes.

15. (Original) The programming circuit according to claim 10, wherein the predetermined current bias of each bias stage of the series of bias stages is the product of a constant and two raised to a predetermined power.

16. (Currently Amended) A programmable DC voltage generator system having at least one voltage generator system, a voltage generator system which is one of said at least one voltage generator system comprising:

means for charge pumping;

means for controlling the means for charge pumping; and

means for programming including:

means for receiving at least one input control signal;

means for processing the at least one input control signal using at least a series of bias stages;

means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and

means for outputting the at least one output control signal to the means for controlling the means for charge pumping of the voltage generator system for controlling the means for controlling the means for charge pumping in accordance with the at least one input control signal.

17. (Currently Amended) ~~A programmable DC voltage generator~~ The system according to claim 16, having at least one voltage generator system, said at least one voltage generator system comprising:

~~means for receiving at least one input control signal;~~

~~means for processing the at least one input control signal using at least a series of bias stages;~~

~~means for generating at least one output control signal using at least a signal outputted by the series of bias stages; and~~

~~means for outputting the at least one output control signal to the control circuit of the voltage generator system for controlling the control circuit in accordance with the at least one input control signal,~~

~~wherein the control circuit of the voltage generator system~~ means for controlling the means for charge pumping includes a limiter circuit and an oscillator circuit, and the output control signal controls at least one of the limiter circuit and the oscillator circuit.

18. (Currently Amended) The system according to claim ~~17~~ 16, wherein a first input control signal of the at least one input control signal is configured for generating a first output control signal of the at least one output control signal for controlling the limiter circuit of the means for controlling the means for charge pumping ~~control circuit~~ and a second input control signal of the at least one input control signal is configured for generating a second output control signal of the at least one output control signal for controlling an oscillator circuit of the ~~control circuit~~ means for controlling the

means for charge pumping.

19. (Original) The system according to claim 18, wherein the means for processing the at least one input control signal includes a first means for processing the first input control signal and a second means for processing the second input control signal.

20. (Original) The system according to claim 19, wherein the first output control signal is output by the first means for processing, and the second output control signal is output by the second means for processing.

21. (Original) The system according to claim 18, wherein the first input control signal is configured for indicating a target output voltage for the voltage generator system.

22. (Original) The system according to claim 21, wherein the limiter circuit includes circuitry for determining when the output voltage of the voltage generator system has reached the target output voltage indicated by the input signal, and upon a positive determination, the circuitry sends the signal to the oscillator circuit to disable the oscillator circuit.

23. (Original) The system according to claim 22, wherein upon the positive determination, the circuitry sends the signal to a charge pump of the voltage

generator system to disable the charge pump.

24. (Original) The system according to claim 18, wherein the second input control signal is configured for indicating a pumping speed for the oscillator circuit.

25. (Original) The system according to claim 16, wherein the means for processing the at least one input control signal include means for converting the at least one input control signal into at least one binary signal, and means for providing a portion of the at least one binary signal to a bias stage of the series of bias stages for producing current bias of the at least one binary signal by a predetermined current bias.

26. (Original) The system according to claim 16, wherein the means for processing the at least one input control signal processes a coarse component signal and a fine component signal of the at least one input control signal.

27. (Original) The system according to claim 16, wherein the at least one input control signal is received from a processor.

28. (Currently Canceled)

29. (Currently Amended) A programming circuit and for controlling a control circuit controlling a charge pump of a voltage generator system, ~~wherein the~~ programming circuit ~~comprises~~ comprising:

means for receiving an input control signal having a value selectable from a range of values, wherein the input control signal is generated external to the voltage generator system;

means for processing the input control signal; and

means for generating an output control signal to the control circuit to control the charge pump of the voltage generator system for controlling the control circuit in accordance with the input control signal,

wherein the control circuit includes a limiter circuit and an oscillator circuit, and the output control signal controls at least one of the limiter circuit for disabling the oscillator circuit upon reaching the target output voltage, and the pumping speed of the oscillator circuit.

30. (Original) The programming circuit according to claim 29, wherein the means for processing the input control signal includes a series of bias stages.

31. (Currently Amended) The programming circuit according to claim 29, wherein the input control signal is configured for indicating at least one of a target output voltage for the voltage generator system and a pumping speed for ~~an~~ the oscillator circuit.

32. (Currently Canceled)

33. (Original) The programming circuit according to Claim 29, wherein

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the voltage generator system outputs at least one output voltage having a varying voltage level in accordance with the input control signal, for use in different operational modes and test modes.
